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22 January 1968 Number 2 - 68

### OPERATIONS DIVISION PROCEDURAL NOTICE

### Computer Center Scheduling and Machine Loading

### 1. Objectives

This notice describes the scheduling and notification system to be put in effect in the OCS Computer Center on 29 January 1968. Its objectives are:

- a. To establish a simple and effective system for processing work submitted to the Computer Center.
- b. To establish a means for communicating run requirements and status between the Computer Center and its users.
- c. To maximize "service" to users, especially during prime shift.

To achieve these objectives, full cooperation and understanding is needed by all concerned parties. In this regard, it is noted that Operations Division cannot on its own evaluate the urgency or relative priority of computer processing requirements, and often neither can the individual submitting jobs for a third party. The success of this system will depend on an objective assessment of need by the submitter within the limitations of information available to him. It is also appropriate to note that all jobs submitted have an effect on all other jobs submitted in terms of turnaround time. Therefore, job submitters should consider the effect on others when submitting a job in a particular category.

## 2. Requirement Categories

The system for scheduling computer processing is based on five categories of processing requirements. These categories are not to be considered as processing priorities, but rather a means by which users state requirements in a uniform way. The category selected and entered on Form 2737 will be translated into a scheduling sequence by Operations Division.

Category A: An urgent processing request which must be accomplished by a specified date and time during prime shift, regardless of run characteristics. Date and time needed must be specified on Form 2737.

Category B: A request for block time for user purposes on or off prime shift. Examples might be ANDI, OSA/OSP production, program problem solving, and application system checkout. Date and time needed (i.e., "from-to" time requested) must be specified on Form 2737. User may be present.

Category C: A processing request with a maximum estimated run time of twelve (12) minutes or less with date and time needed not specified, but prime time processing desired.

Category D: A processing request with a maximum estimated run time of more than twelve (12) minutes. Date and time needed is not specified, but prime time processing desired.

<u>Category E</u>: A processing request where date and time needed is specified such that it can be processed either overnight or on weekends.

Note that Form 2737 must be used for all processing requests, including those for block time, and date and time needed must be entered for Categories A, B, and E requests.

# 3. Scheduling

Using the requirement category entered on Form 2737, Operations Division will schedule processing as follows (prime time is defined as 0800 - 1700 on normal Agency working days):

## a. General

- 1) Categories A, B, and E requests will be scheduled to meet the stated date and time needed. Conflicts during prime time will be resolved in the category sequence (A, B) within the assigned computer system (see below).
- 2) Categories C and D requests processed during prime time will be scheduled on the assigned computer system in category sequence and generally. FIFO (first in first on) within category. On systems assigned to emulation, these will have priority over OS/360 requests within the specified category, and within the time scheduled (see below).
- 3) During non-prime time, if it appears that all work can be completed by 0800, computer systems will be scheduled at the discretion of Operations Division. If an 0800 backlog is likely, (a) Categories A, B, and E requests will be scheduled first to meet the stated date and time needed, (b) Categories C and D requests will be scheduled in category sequence and generally FIFO (first in first on) within category.

# b. Computer System Assignments - Prime Time

1) 65(1): Categories A and B, OS/360 and 7090 emulation.

- 2) 65(2): Categories C and D, OS/360.
- 3) 65(3): Categories C and D, OS/360 generally and 7090 emulation scheduled from 0900 1100 daily as required.
- 4) 50(2): Until this system is released, Categories A and B, 7010 emulation; Category B, OS/360.
- 5) 70/45: Categories A, B, C, D 501/301 emulation.
- 6) Other available time on all systems will be used by Operations Division to respond to other categories.

# 4.\ Request Status

- a. At the time that a Category C or D processing request is submitted, Production Control Branch, Operations Division, will, if asked, provide an estimate of approximate completion time. Production Control Branch (PCB) will keep a current assessment of the situation, which will, of course, depend on request category, current workload, and existing conditions in the Computer Center. If the situation changes, PCB, if it is indicated on the request form, will notify the submitter. Status on a specific request can be obtained from Production Control Branch at any time during prime shift on request. However, requests of this nature should be kept to a minimum because it takes considerable time to locate one processing request out of many which may be in process at a given time.
- b. When it appears that the date and time needed requirement of Categories A, B, and E cannot be met, the submitter will be notified as soon as the delay can be predicted and the submitter can be reached.

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c. At 1100 and 1500 hours daily, an estimate of average projected turnaround time for Categories C and D will be prepared by Production Control. This will be available at the Production Control counter and published to OCS Division Chiefs.

# 5. Run Termination Procedures

- a. All test runs which exceed <u>maximum</u> estimated run time will be terminated at the time this estimate is exceeded. Test runs may be terminated if estimated maximum number of lines is exceeded. This does not apply to the 50(2) because the time estimates are made on the basis of 360/65 time. Operations Division will exercise judgment in determining allowable run time on the 50(2) for specific jobs.
- b. Production runs of Categories C, D, and E jobs may be terminated at the time that maximum estimated run time or number of lines is exceeded. Operations Division will consider known job requirements and characteristics in determining when or if to terminate a specific job. For Categories A and B, the submitter will be called for consultation, if possible, during prime shift (or after hours if he so specified on run instructions.) If he cannot be reached, Operations Division will decide how long to let the job run.

## 6. Management Information

A list of all requests received with a Category A or B will be provided to OCS Division Chiefs at approximately 1100 and 1500 each day and summarized each month for the Director of Computer Services so that management can be cognizant of those requests which were of such an exceptional nature that Categories A and B requirements were established. If the numbers or run times of Category D jobs appear to be adversely effecting average turnaround time, they may also be published with the Category A and B jobs.

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Chief

Operations Division
Office of Computer Services